

## **REMARKS**

### **Status of the Claims**

Claims 1, 2, 4, 5 and 8-11 are currently pending in the application. Claims 1-7 stand rejected. Claims 1, 2, 4 and 5 have been amended as set forth herein. Claims 3, 6 and 7 have been cancelled herein. All amendments and cancellations are made without prejudice or disclaimer. New claims 8-11 have been added herein. No new matter has been added by way of the present amendments. Specifically, the amendments to claims 1, 2, 4 and 5 are to remove the term "derivative" and otherwise to conform the claims more closely to US format. New claims 8 and 9 are supported generally throughout the specification, and specifically at least at paragraph [0032]. Likewise claims 10 and 11 are generally supported throughout the specification, and more specifically at least at paragraph [0048], and support exists for claim 10 at least at paragraph [0039]. Reconsideration is respectfully requested.

### **Objection to the Title of the Invention**

The Examiner states that the Title of the Invention is not descriptive. (*See*, Office Action of September 21, 2007, at page 7, hereinafter, "Office Action"). To expedite prosecution, the Title of the Invention has been amended herein without prejudice or disclaimer to recite, "CHALCONE COMPOUNDS." No new matter is entered into the specification by way of this amendment. Support for the amendment may be found throughout the specification, and more specifically at least at the Abstract and paragraphs [0004]-[0009]. Applicants believe this Title is descriptive of the claimed invention.

Reconsideration and withdrawal of the objection to the Title of the Invention are respectfully requested.

### **Rejections Under 35 U.S.C. § 112, First Paragraph**

#### Written Description

Claims 1-7 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. (*See*, Office Action, at pages 2-3). Claims 3, 6 and 7 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims as set forth herein.

The Examiner states that there is no written description support for the term “derivative thereof” in the specification. The Examiner also states that the claims are directed to utilities which “are not practical” according to US patent law because they are “reach-through” claims which attempt to encompass treatment or prevention of all diseases known today and that may be discovered in the future arising from the biological mechanisms recited in the claims.

Although Applicants do not agree that the claims lack written description support in the specification, to expedite prosecution, Applicants have amended the claims without prejudice or disclaimer to remove the term “derivative” from the claims. Furthermore, Applicants point out that new claims 8 and 9 are directed to specific derivatives of the claimed compounds as supported by the specification at least at paragraph [0032].

Reconsideration and withdrawal of the written description rejection of claims 1, 2, 4 and 5 are respectfully requested.

Enablement

Claims 1-7 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. (*See*, Office Action, at page 3-6). Claims 3, 6 and 7 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims as set forth herein.

The Examiner states that it would require undue experimentation to identify all of the diseases that are caused by the mechanisms recited in the claims, and then determine a treatment regimen that would both treat and possibly prevent the diseases associated with the biological mechanisms identified in the claims. The Examiner further states that the specification provides no conclusive evidence or empirical data linking the increased nitrogen monoxidase and/or aldose reductase activity with the diseases listed on pages 12-13 of the specification.

The Examiner asserts that there is no conclusive evidence in the specification that establishes a nexus between the diseases cited on pages 12-13 of the specification and nitrogen monoxidase or aldose reductase activity. Applicants believe the Examiner is not taking into consideration the knowledge of one of skill in the art on or before the filing date of the present application which includes many well-documented relationships between NO production and various diseases.

For instance, at paragraphs [0029] – [0032] (pages 10-11) of the specification, the relationship between NO production and various diseases known to be related to NO production abnormalities is disclosed. Additionally, the relationship between NO production abnormality and cancer/inflammatory diseases is disclosed, for instance at paragraph [0030]. Further, the

relationship between aldose reductase activity and diabetic complications is disclosed at paragraph [0034] (page 12) of the specification. These relationships between variance beyond normal NO production in the body and various diseases, and many more not listed, were known to one of skill in the art on or before the filing date of the present application.

As evidence of the knowledge of one of skill in the art, the Examiner is respectfully referred to U.S. Patent Application Publication No. 2003/0040541 A1 and U.S. Patent No. 5,635,505. The '541 publication discloses cancer and inflammatory diseases as examples of diseases related to NO production at paragraph [0033] (pages 2-3). The '505 patent discloses that a compound which inhibits the activity of aldose reductase is useful for the treatment of the complications of diabetes, such as cataracts, neuroses, nephropathies and retinopathies.

Additionally, in light of the amendments to the claims and the evidence discussed above, as disclosed in the attached publications, the presently pending claims are believed to be fully enabled by the specification when considered in light of the knowledge of one of skill in the art on or before the present application filing date.

The Examiner is respectfully reminded that a "patent need not teach, and preferably omits, what is well known in the art." (*See, Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1987) and *Hybritech v. Monoclonal Antibodies*, 802 F. 2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986), cert. denied, 107 S. Ct. 1606 (1987)). Additionally, the MPEP states that, "If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met." (*See*, MPEP, at

2163, II, A, 3, (a), citing *Vas-Cath v. Mahurkar*, 935 F.2d 155, at 1563, 19 USPQ2d 1111, at 1116 (CAFC 1991), *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972), stating “the description need not be in *ipsis verbis* [*i.e.*, “in the same words”] to be sufficient”).

Reconsideration and withdrawal of the enablement rejection of claims 1, 2, 4 and 5 are respectfully requested.

### **Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claims 1-7 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. (*See*, Office Action, at page 6). Claims 3, 6 and 7 have been cancelled herein without prejudice or disclaimer, thus obviating the rejection of these claims. Applicants traverse the rejection as to the remaining claims as set forth herein.

The Examiner states that the term “derivative” is not defined in the claims and that claims 3 and 4 improperly depend from claim 2.

As already discussed above, concerning the written description issues, although Applicants do not agree that the claims are indefinite, to expedite prosecution, Applicants have amended the claims without prejudice or disclaimer to remove the term “derivative” from the claims. Furthermore, Applicants point out that new claims 8 and 9 are directed to specific derivatives of the claimed compounds as supported by the specification at least at paragraph [0032].

Reconsideration and withdrawal of the indefiniteness rejection of claims 1, 2, 4 and 5 are respectfully requested.

**Rejections Under 35 U.S.C. § 102(b)**

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Dimmock et al., *Current Med. Chem.*, 6(12):1125-1149, 1999 (hereinafter, "Dimmock et al."). (See, Office Action, at pages 6-7). Applicants traverse the rejection as set forth herein.

The Examiner states that Dimmock et al. disclose compounds which the Examiner concludes are reasonably within the definition of a "derivative" of the compounds recited in claim 1.

As previously discussed, above, the term "derivative" has been removed from claim 1 without prejudice or disclaimer, thus obviating the basis for the Examiner's rejection. Furthermore, new claims 8 and 9 encompass specific derivatives which are also not disclosed or suggested anywhere in Dimmock et al.

Reconsideration and withdrawal of the anticipation rejection of claim 1 are respectfully requested.

### CONCLUSION

If the Examiner has any questions or comments, please contact Thomas J. Siepmann, Ph.D., Registration No 57,374, at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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Attachments: Copy of U.S. Patent Application Publication No. 2003/0040541 A1  
Copy of U.S. Patent No. 5,635,505